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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,967	07/31/2006	Peter Ludwig	64349US010	6670
32692 7590 04/15/2010 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER MOORE, WALTER A				
ART UNIT 1783		PAPER NUMBER		
NOTIFICATION DATE 04/15/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/587,967

Applicant(s)

LUDWIG, PETER

Examiner

WALTER MOORE

Art Unit

1783

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

RESPONSE TO AMENDMENT

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/02/2009 has been entered.

Status of Claims

2. Claims 1-14 are pending. Claims 1 and 14 were amended in the response filed on 12/02/2009.
3. Amendments to the claims, filed on 12/2/2009, are non-compliant. The status identifier "(Previously Presented)" in claim 1 is incorrect because the claim is amended. MPEP 706.07(h) VI. In the interest of compact prosecution, Examiner is examining the claims.

Withdrawn Rejections

4. The 35 USC 112 rejection of claim 14, made of record in the office action mailed on 6/3/2009, have been withdrawn due to applicant's amendment filed on 12/2/2009.
5. The 35 USC 102 rejection of claim 14 as anticipated by Sher, made of record in the office action mailed on 6/3/2009, has been withdrawn due to applicant's amendment filed on 12/2/2009.

6. The Double Patenting rejection over co-pending application number 10/588134, made of record in the office action, mailed on 6/3/2009, has been withdrawn due to applicant's amendment filed on 12/2/2009.

REJECTIONS

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

8. Claim 13 is objected to because it claims the relief structure "is a rhombuses".
Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sher et al., USPN 6,197,397.

Regarding claim 1, Sher teaches a separating layer carrier (release liner, col. 5, ln. 55) comprising a laminar substrate (col. 9, ln. 17-22) and a separating layer applied thereon (silicone release coating, col. 9, ln. 17-22). Sher discloses the carrier comprises a relief structure with raised sections (ridges, fig. 1, #28, col. 5, ln. 65) forming substantially complementary channels in a layer of adhesive (col. 6, ln. 35-38), through which air trapped during adhesion can escape (col. 5, ln. 22). Sher discloses the relief structure is provided, at least in part, by an imprint of a printing material (silicone release coating, col. 9, ln. 17-22).

Regarding claims 2-4, Sher discloses the substrate comprised paper (col. 9, ln. 17) coated with plastic (col. 9, ln. 17).

Regarding claim 5, Sher teaches the substrate comprises plastic film (col. 9, ln. 17-20).

Regarding claim 6, Sher teaches the substrate comprised plastic film coated with plastic (col. 9, ln. 18-19).

Regarding claim 7, Sher does not expressly state the relief structure is imprinted on the entire surface of the separating layer carrier (release liner). However, Sher implies the relief structure exists on the interlayer support (release liner) in three different ways.

First, Sher implies the relief structure (microembossed pattern) is imprinted entirely on the separating layer carrier (release liner). In Sher, the relief pattern was formed by passing the multiple layer film laminate through an engraved roller apparatus, which formed a relief pattern on the separating layer carrier (release liner, col. 15, ln. 19-21). Since there is a plastic layer in the separating layer carrier (release liner) and there was a relief structure formed on the separating layer carrier (release liner), there was a relief structure formed on the plastic coating of the interlayer support (release liner) taught in Sher. Sher does not indicate that there is a margin section to the rollers. Furthermore, the pattern formed on the substrate is a "pattern of continuous raised intersecting microridges" (Col. 15, ln. 31). The lack of a margin on the periphery of the rollers and the continuous pattern implies that the relief pattern is formed on the entire surface of the substrate.

Second, Figure 1 is photograph of a substrate (release liner). Figure 1 shows a relief structure over the entire surface of the substrate in the photograph.

Third, Sher prepared several test samples. The test samples have a substrate with a relief pattern printed on the entire surface of the substrate. Sher conducted tests of the various properties of the adhesive material. In order to form each test sample, Sher passed a substrate (release liner) through a roller with a continuous pattern (col. 15, ln. 31). After passing through the roller assembly, adhesive was applied to each sample (col. 16, Examples 6-8, ln. 66). Then, Sher cut a circular section out of the adhesive material (col. 13, ln. 49-65). Cutting a circular section out of a prepared adhesive material implies that the relief pattern existed on the entire surface of the test sample. In order to form the relief pattern on the adhesive, a relief pattern existed on the substrate contacting the adhesive (col. 3, ln. 35-36; and col. 15, ln. 59-60). So, the relief pattern covered the entire substrate of the test sample.

Regarding claims 8 and 13, Sher prepared an example with interconnected hexagons in a honeycomb arrangement (col. 21, ln. 1).

Regarding claim 9, Sher teaches the shape of the relief pattern could be based on Euclidean or fractal geometry (col. 4, ln. 29). Euclidean geometry includes all shapes of polygons. Furthermore, fractals are complex mathematically defined shapes, which appear to be repeating sequences of random shape distributions.

Regarding claim 10, Sher teaches the relief structure comprises sections having a width of 165 μm (col. 16, ln. 39) and a height between 25 and 30 μm (col. 16, ln. 39).

Regarding claim 11, Sher teaches the area of the polygons was 0.5929 mm^2 (col. 16, Table 1; "Engraved Roll Groove Spacing", $0.77\text{mm} \times 0.77\text{mm} = 0.5929 \text{mm}^2$).

Regarding claim 12, Sher teaches the separating layer carrier comprises a self adhesive material (pressure sensitive adhesive, col. 15, ln. 44).

10. Claims 1-10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hannington, USPA 2001/0031353.

Regarding claims 1 and 12, Hannington discloses a separating layer carrier comprising a laminar substrate (release liner, fig. 4, #44, p. 6, para 0050), a separating layer (silicone release coating, p. 4, para 0040), and a relief structure (non-adhesive areas, fig. 4, #43, p. 5, para 0050). Hannington discloses channels in the adhesive for air to escape (p. 6, para 0050, last line). Hannington discloses the relief structure (non-adhesive areas) is a printing material (ink, p. 1, para 0017).

Regarding claims 2-6, Hannington discloses the substrate is a plastic coated paper (polyethylene coated paper, p. 4, para 0040) or a plastic film coated with plastic (polyethylene coated PET, p. 4, para 0040).

Regarding claim 7, Hannington discloses the imprint covers the entire surface (p. 3, para 0031, ln. 4-6).

Regarding claims 8 and 13, Hannington discloses the imprint can be hexagons (p. 3, para 0031).

Regarding claim 9, Hannington discloses random combinations of patterns can be used (p. 3, para 0031).

Regarding claim 10, Hannington discloses the relief structure has a height between 0.3 and 100 microns and a width of between 12 and 250 microns (p. 3, para 0031).

Claim Rejections - 35 USC § 103

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sher et al., USPN 6,197,397.

Sher is relied on as above regarding the section 102 rejection. If Sher does not anticipate the claimed shapes then Sher renders the claimed shapes obvious.

Sher teaches a relief pattern having corner joined polygons (fig. 1 and 3; and col. 15, ln. 30-32). Sher teaches it is within the skill in the art to create any pattern desired, including Euclidean geometric patterns with any size, shape, and depth (Col. 7, ln. 49-54). Sher suggests that the irregular shape aids in fluid egress from under the adhesive layer as it is applied to a substrate (col. 7, ln. 38-40).

It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape, taught in Sher, to stochastically shaped and distributed irregular polygons. One skilled in the art would have been motivated to do so in order to improve fluid egress (col. 7, ln. 38-40). MPEP 2144.04 IV.

12. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sher et al., USPN 6,197,397, in view of Scarborough et al., USPA 2003/0211295.

Regarding claim 1, Sher teaches a separating layer carrier (release liner, col. 5, ln. 55) comprising a laminar substrate (col. 9, ln. 17-22) and a separating layer applied thereon (silicone release coating, col. 9, ln. 17-22). Sher discloses the carrier comprises a relief structure with raised sections (ridges, fig. 1, #28, col. 5, ln. 65) forming substantially complementary channels in a layer of adhesive (col. 6, ln. 35-38), through which air trapped during adhesion can escape (col. 5, ln. 22). Sher discloses the relief structure is made by embossing a pattern on the release liner (col. 3, ln. 52-53).

Scarborough is drawn to a printed article (Abstract). Scarborough discloses the printed pattern creates a three dimensional surface without the cost of embossing (p. 1, para 0008). It would have been obvious to one of ordinary skill in the art at the time of invention to substitute a printed pattern, as taught in Scarborough, for the embossing, as taught in Sher, to obtain a separating layer carrier comprising relief structures imprinted with printing material. One of ordinary skill in the art would have been motivated to substitute the printed pattern to save the cost associated with embossing (p. 1, para 0008). Sher and Scarborough are analogous art related three dimensional textured surfaces.

Sher is relied on above regarding claims 2-13.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Sher et al., USPN 6,197,397 as applied to claims 1-13 above; or Sher et al., USPN 6,197,397, in view of Scarborough et al., USPA 2003/0211295, as applied to claims 1-13 above; and further in view of O'Donnell et al., USPN 6,254,582.

Sher and Sher in view of Scarborough are relied on as above. Sher and Sher in view of Scarborough do not teach the relief structure (silicon coating) is a silicon ink.

O'Donnell is drawn to adhesive articles (panty liners, col. 3, ln. 62) comprising silicone release coating (col. 4, ln. 60). O'Donnell discloses the silicone release coating is applied with gravure coaters or ink jet printing (col. 5, ln. 1). Therefore, O'Donnell discloses silicone ink is a conventional release coating. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use silicone printing ink, as taught in O'Donnell, in the separating carrier, taught in Sher and/or Sher in view of Scarborough, to obtain a separating layer carrier having a silicone printing ink since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. MPEP § 2144.07.

14. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hannington, USPA 2001/0031353.

Hannington is relied on as above. If Hannington does not anticipate the shape of claim 9, then Hannington renders the shape obvious.

Hannington discloses the relief structure can be a grid, weave pattern, waffle pattern, diagonal or straight lines, hexagons, rectangles, circles, and triangles (p. 3, para 0031). Hannington also discloses combinations of patterns can be used (para 0031). Therefore, Hannington establishes it is within the level of one of ordinary skill in the art to make a variety of shapes to provide fluid egress.

It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. In the instant case, the application does not indicate any new, significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to change the shape, taught in Hannington, to stochastically shaped and distributed irregular polygons. MPEP 2144.04 IV.

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hannington, USPA 2001/0031353, in view of Sessions, USPN 6,350,339.

Hannington is relied on as above.

Hannington does not disclose silicone printing ink.

Sessions is drawn to a means to improve the release of an adhesive layer (col. 8, ln. 53-56). Sessions teaches printing ink lines over an adhesive layer (col. 8, ln. 53-54). Sessions discloses the ink contains silicone (col. 4, ln. 11-12). Sessions discloses the ink provides interruption of the adhesive layer to facilitate removal (col. 8, ln. 55-56). It would have been obvious to one of ordinary skill in the art at the time of invention to use silicone ink, as taught in Sessions, in the separation layer carrier, taught in Hannington, to obtain a separating layer carrier comprising silicone ink. One of ordinary skill in the art would have been motivated to use silicone ink because it deadens the adhesive and facilitates adhesive removal (Sessions, col. 8, ln. 55-61).

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 4, and 6-13 of copending Application No. 10/588134. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons:

Regarding claim 1, ‘134 claims a separating layer carrier (interlayer support, claim 1) comprising a relief structure (claim 1), which forms channels in an adhesive layer (claim 1). ‘134 claims the relief structure is provided by an imprint (claims 4 and 11) of printing material (plastic coating, claims 4 and 11).

Regarding claims 2-6, ‘134 claims the substrate comprises paper (claims 6 and 11), plastic coated paper (claims 8 and 11), plastic film (claims 7 and 11), or plastic coated plastic film (claim 11).

Regarding claim 7, '134 claims the relief structure is on the entire surface (claim 12).

Regarding claim 9, '134 claims the relief structure is irregular polygons (claim 1).

Regarding claim 10, '134 claims the relief structure has a width between 50 and 200 microns and a height between 5 and 40 microns (claim 2).

Regarding claim 12, '134 claims the carrier is self adhesive (claim 13).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

18. Applicant's arguments filed 12/02/2009 have been fully considered but they are not persuasive.

Applicant argues Sher fails to disclose an imprint of printing material. As stated in the rejection above the examiner is interpreting the coating on the release liner, taught in Sher, as a printing material. The coating is "at least in part" a portion of the relief structure.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WALTER MOORE whose telephone number is (571) 270-7372. The examiner can normally be reached on Monday-Thursday 9:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1783

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WM/

/David R. Sample/

Walter Moore, Examiner AU 1783

Supervisory Patent Examiner, Art Unit 1783

4/8/2010